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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,104	02/13/2004	Hiroaki Kato	1018775-000894	5344

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

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05/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,104

Applicant(s)

KATO ET AL.

Examiner

Christopher RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/25/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-11,14,15 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-11,14,15 and 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konya *et al.* in US Patent 6,777,152 in view of *Handbook of Imaging Materials*, 2nd edition, to Diamond, pp. 202-203 and further in view of Ohno *et al.* in US Patent 6,096,468.

Claim 28 remains unchanged from its consideration at the time of the last Office action. This rejection was presented in the last Office action, and, consequently, the claim would have been obvious for the same reasons as presented previously.

As it is understood by the Examiner, applicants traverse this rejection because the cited art does not provide sufficient motivation to arrive at the claimed invention without improper hindsight. Applicants also take the position that the applied art does not teach how to solve the same problem as applicants and, as a result, fails to set forth a *prima facie* case of obviousness. Taking this latter point first, the Examiner refers applicants to MPEP 2144. As discussed here, "The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law." This section of the Manual also states, "The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result

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discovered by applicant." See, *In re Kahn*, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). The MPEP and this recent CAFC decision makes clear that a proper section 103(a) rejection does not require the same rational as applicants in order to formulate a *prima facie* case of obviousness. Consequently, applicants position that the art must suggest the benefits obtained by the instant inventors is contrary to established case law.

The rejection lodged by the Examiner does meet the requirements set forth by code and throughout case law by providing motivation to produce the toner of Konya with a shape characteristics as defined in Diamond and Ohno. As noted in the rejection, the artisan would have found it obvious to produce Konya by a granulation (i.e., aggregation) method because this method permits the artisan to obtain small toner particles with a narrow particle size, which is desirable. The artisan would also have found it obvious to optimize the shape of the toner, such as in the range of from 0.950 to 0.995, because the Diamond reference teaches that the shape of a toner is usually modified to give a desired characteristic and Ohno teaches a specific shape with a roundness of from 0.950 to 0.995, more preferably 0.970 to 0.990 to give improved transfer performance and better development of low potential images. Clearly the artisan in the toner art would look to those references known in the art to further improve the characteristics of a disclosed toner. Such optimization is routine in the art and would have been an expected course of action for this artisan. Konya's toner is transferred during the imaging process (col. 9, l. 1-5) and the artisan seeking to routinely optimize this desired characteristic of Konya's toner would look to Diamond and Ohno as teachings in the art to guide him/her. Similarly, the artisan would have found further benefit by optimizing the toner shape in development of low potential images. There is ample motivation from the prior art itself to arrive at applicant's invention. No evidence is

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of record in this application that compares Konya's toner with the inventive toner, and thus the benefits of the instant invention are not seen as unexpected over Konya's toner.

The rejection is still seen as proper and is maintained.

Claims 1, 4, 5, 7-11, 14, 15, 20-27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada *et al.* in US Patent 6,130,020 in view of *Handbook of Imaging Materials*, 2nd edition, to Diamond, pp. 202-203 and further in view of Ohno *et al.* in US Patent 6,096,468.

Wada discloses a toner comprising a binder resin and colorant, and external additives containing a hydrophobically treated metallic oxide fine particle of the formula $\text{Si}_x\text{A}_y\text{O}_{(4x+yz)/2}$. Specifically disclosed complex oxides have A as Ti and are summarized in Table 1 (col. 3). These metal oxides aid charge stability (col.1, l. 9-14) and have a specific surface area of from 40 to 200 m^2/g (col. 3, l. 34-37). Exemplified metal oxides with A as Ti and specific surface area of 43 and 45 m^2/g are disclosed in Examples 2 and 8, respectively. This oxide is present in an amount of from 0.01 to 5 parts per 100 parts of the toner (col. 4, l. 27-34). The toner also contains an additional external additive, such as silica, alumina, or titanium oxide to further improve charging and fluidity, with silica as preferred (col. 4, l. 35-48). The total quantity of the hydrophobically treated metallic oxide fine particle and the additional additive, such as silica, is 0.01 to 5 parts per 100 parts of the toner (col. 4, l. 52-57). The toner is produced by one of a number of methods including emulsion dispersion and suspension polymerization (col. 4, l. 58-67) and may be used as a mono-component toner (col. 6, l. 9-12). The content of the colorant is from 1 to 20 parts by weight per 100 parts of the binder resin (col. 5, l. 38-41; see pending claim 14). Negative charge control agents are disclosed to aid proper triboelectric charging of the toner (col. 5, l. 51-55).

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The reference does not specify a wet granulation method for formation of the toner particles but Diamond teaches that a latex aggregation toner formation (i.e., wet granulation; see spec. ¶¶ [0029] – [0030]) method has become increasingly desirable because it permits the artisan to obtain small particles with a narrow particle size. It also permits various toner morphologies, from potato shaped to sphere (pp. 202-203). The specific numerical value of the toner is not disclosed but, as noted in the prior Office actions, a spherical shaped toner equates to a roundness of 1.00. Additionally, Ohno teaches that toners having a roundness (i.e., circularity) of 0.950 to 0.995, more preferably 0.970 to 0.990 having improved transfer performance and are useful in development of low potential latent images (col. 8, l. 43-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the toner of Wada by a granulation (i.e., aggregation) method because this method permits the artisan to obtain small toner particles with a narrow particle size, which is desirable as taught by Diamond. The artisan would also have found it obvious to optimize the shape of the toner, such as in the range of from 0.950 to 0.995, because the Diamond reference teaches that the shape of a toner is usually modified and Ohno teaches a specific shape with a roundness of from 0.950 to 0.995, more preferably 0.970 to 0.990 to give improved transfer performance and better development of low potential images.

Applicants' remarks concerning the previous rejection over these claims are moot in view of the new grounds of rejection necessitated by applicants' amendment. The comments above concerning the propriety of combining references for a purpose other than that disclosed by applicants are incorporated here should applicants decide to traverse on that basis. See MPEP 2144.

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Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wada *et al.* in US Patent 6,130,020 in view of *Handbook of Imaging Materials*, 2nd edition, to Diamond, pp. 202-203 and further in view of Ohno *et al.* in US Patent 6,096,468 as applied to claims 1, 4, 5, 7-11, 14, 15, 20-27, and 30 above, and further in view of Nakamura *et al.* in US Patent 6,967,070.

Wada, Diamond, and Ohno were described above. The references do not disclose the use of a wax as specific in dependent claim 29, but Wada does teach the presence of release and off-set prevention agents (col. 5, l. 58-65). However, Nakamura discloses a wax that is usefully included in a toner (Abstract). This wax permits the toner to be flash fused with minimal odor while also giving improved fixing strength.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the wax of Nakamura in the invention of Konya because the toner of Konya is formulated so that it can be fixed (col. 9, l. 1-5) and Nakamura discloses a wax that permits good flash fixing characteristics.

Applicants' remarks concerning the previous rejection over these claims are moot in view of the new grounds of rejection necessitated by applicants' amendment. The comments above concerning the propriety of combining references for a purpose other than that disclosed by applicants are incorporated here should applicants decide to traverse on that basis. See MPEP 2144.

Conclusion

Those rejections not repeated are withdrawn based on the recent claim amendments.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on Monday to Thursday from 5:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher RoDee/
Primary Examiner
Art Unit 1756

cdr
23 May 2007